

## **Firm-Level Institutions and Performance of Publicly Quoted Companies in Kenya**

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### **Abstract**

*Firm-level institutions constitute the internal organizational environment which define the context in which strategic decisions are made and implemented. Effective and successful strategy implementation requires apt institutionalization of the strategy. Logically, firm-level institutions have an indirect effect on corporate performance through their direct effect on strategy implementation. In this study, a direct effect of the firm-level institutions on corporate performance was investigated. Based on a survey of 23 companies listed on the Nairobi Stock Exchange, ten firm-level institutions were captured under two broad dimensions of administrative systems and resource competencies. Performance implications of these firm-level institutions were then examined. The study reports that for the surveyed companies, most of the firm-level institutions were manifest to a large extent. The results also indicate that a very strong positive relationship exists between firm-level institutions and various indicators of corporate performance. However, the overall results for the effect of firm-level institutions on corporate performance were statistically not significant. The results partially concur with pertinent theories as well as similar empirical studies. Based on the findings, implications for theory, methodology, and managerial practice as well as areas for further study are identified.*

**Key words:** Firm-Level Institutions, Corporate Performance, Publicly Quoted Companies, Kenya

### **Introduction**

One of the most pertinent determinants of corporate success is how effective an organization's chosen strategy gets implemented. Such implementation requires that the strategy is not only operationalized but also appropriately institutionalized. While the former requires action planning, the latter requires alignment of the strategy with the internal factors of the organization. The importance of such alignment is partially explained by institutional theory which not only acknowledges the importance of economic forces and technical imperatives in shaping social and organizational systems, but also seeks to examine the preferences and behaviors of organizations, individuals, and other outside forces (Carney, Gedajlovic & Yang, 2009; Scott, 2001) as cited in Ahlstrom and Bruton (2010). This observation reflects North's (1991) definition of institutions as humanly devised constraints that structure political, economic and social interactions. North argues that institutions, both formal and informal, are created to reduce uncertainty about exchanges. As such, institutions can refer to both the governance structures that define the rules of the game and to the rules of the game themselves (Bhaumik and Divoma, 2011). Impliedly therefore, the logical outcome of efficient institutions is better economic performance. In this paper, we advance a view that firm-level institutions are those firm-specific attributes in the firm's internal environment which define the context in which decisions are made and implemented. This view further submits that firm-level institutions derive from both the resource-based view of the firm and the McKinsey 7-S framework.

The resource-based view, with antecedent to Penrose (1959) but more commonly associated with the work of Wenerfelt (1984), Prahalad and Hamel (1990), Rumelt (1991), Barney (1991), Grant (1991), and Peteraf (1993), emphasizes the internal capabilities of the organization in formulating strategy to achieve a sustainable competitive advantage in its markets and industries. If an organization is seen as made up of resources and capabilities which can be configured (and reconfigured) to provide it with competitive advantage, then its perspective does indeed become inside-out. In other words, its internal capabilities determine the strategic choices it makes in competing in its external environment. From this view, an organization's resources and competencies are considered as determinants of performance through their contribution to firm competitive advantage.

The McKinsey 7-S framework, which is a qualitative framework, was developed at the McKinsey Consulting Company by Peters and Waterman to analyze seven different aspects of an organization to determine if it is functioning effectively or not. According to Peters and Waterman (1982), the model is based on the premise that an organization is not just structure, but consists of seven critical aspects of an organization which include strategy, structure, systems, style, skills, staff, and shared values (the 7Ss). Accordingly, strategy is the central integrated concept of how to achieve the firm's objectives. The essence of strategy is choosing a set of core business activities to create value for the customers, and performing those business activities in the most optimal manner.

It is evident that both the resource view of the firm and the McKinsey 7-S framework augment institutional theory by focusing on the administrative systems and resource competencies of organizations. Publicly quoted companies in Kenya are such organizations whose performance is dependent on the nature of their internal environment manifestations and how strategy is aligned with such manifestations. In this paper, we advance an argument that whereas these organizations may strive to achieve an appropriate match between their strategic behaviours and external environments, achieving the match between the strategic behaviour and the internal organizational environment is equally important because it determines the effectiveness with which strategic decisions are implemented. Consequently, we put forth a proposition that the firm-level institutions (administrative systems and resource competencies) have an important conceptual linkage which subsumes the underlying effects, that is, they have a direct influence on corporate performance of the quoted companies.

### ***Literature Review and Conceptual Hypothesis***

The enduring argument in strategic management is that organizations' competitive advantage is a function of an appropriate fit between internal strengths and weaknesses and external opportunities and threats. This argument is grounded in the proposition that all organizations are environment serving, hence their success is dependent on how they position themselves in a changing environment (Ansoff & McDonnell, 1990; Ansoff & Suvillan, 1993). Consequently, aligning the firm's strategy with the external environment is critical. It is, however, argued that just being able to align external environment and organizational strategy is not enough (Aosa, 1992). An organization's management must also be able to translate the chosen strategy into concrete steps that 'get things done', which is the pertinent concern of strategy implementation (Thompson & Strickland, 2003). Thompson & Strickland further contend that effective and successful strategy implementation of strategy requires not only operationalizing the strategy but also institutionalization of strategy.

Effective strategy implementation includes considerations of who will be responsible for strategy implementation; the most suitable organizational structure that should support the implementation of strategy (Pettigrew, 1988; Lynch, 2000); the need to adapt the systems used to manage the organization (Johnson and Scholes, 2002); the key tasks to be carried out and desirable changes in the resource mix of the organization as well as the mandate of each department in the organization and the information systems to be put in place to monitor progress and resource planning (Pearce & Robinson, 1997). Implementation may also take into account the need for retraining the workforce and management of change (Johnson & Scholes, 2002).

Thompson & Strickland (2003) state that the strategy implementation challenge is to create a series of tight fits between strategy and the organization's competencies, capabilities and structure; between strategy and budgetary allocation; between strategy and policy; between strategy and internal support systems; between strategy and reward structure; and between strategy and the corporate culture. Thompson and Strickland's observation partially alludes to the propositions of institutional theory, the resource-based theory, and the McKinsey 7S model.

The roots of institutional theory run richly through the formative years of the social sciences, enlisting and incorporating the creative insights of scholars ranging from Marx and Weber, Cooley and Mead, to Veblen and Commons (Scott, 2004). Institutional theory has risen to prominence as a popular and powerful explanation for both individual and organizational action (Dacin, Goodstein & Scott, 2002). Institutional theory is a theoretical lens that has been widely used to study the adoption and diffusion of organizational forms and practices (Bjorkman, Fey & Park, 2007). Within this theoretical underpinning, North (1991) defined institutions as the humanly devised constraints that structure political, economic and social interaction. These institutions consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights). Throughout history, North argues that institutions have been devised by human beings to create order and reduce uncertainty in exchange. Together with the standard constraints of economics they define the choice set and therefore determine transaction and production costs and hence the profitability and feasibility of engaging in economic activity (North, 1991). In this paper, we adopt an inward-view which focuses on firm-level institutions which form the context in which decisions are made and implemented. These firm-level institutions have implications for the outcomes of strategy, that is, firm performance.

The theorization in institutional theory resonates well with the resource based theory whose antecedents can be traced to Penrose's (1959) theory of the firm and Selznick's (1957) distinctive competencies. Over the last two decades, resource-based theory (RBT) has emerged as a very popular theoretical perspective for explaining performance (Newbert, 2007). Barney (1991) suggested that resources are leveraged to create competitive advantages, which in turn confer performance advantages. In a meta-analytic review of 125 studies of RBT that collectively encompassed over 29,000 organizations, Crook et al. (2008) observed that while RBT is still evolving as a theory, its empirical base offers strong support for the assertion that organizations' performance is enhanced to the extent that they possess strategic resources. Out of the RBT emerged a resource-based view (RBV) of the firm which asserts that firms gain and sustain competitive advantages by deploying valuable resources and capabilities that are inelastic in supply (Wernerfelt, 1984; Barney, 1986, 1991; Peteraf, 1993). On the basis of this assertion, this paper advances a view that the resources and capabilities possessed by a firm form part and parcel of the firm-level institutions.

While the institutional theory and resource based theory provide partial description of firm-level institutions, the McKinsey 7S framework is probably the most comprehensive model which provides the institutional framework within which strategy implementation takes place. Developed at the McKinsey Consulting Company by Peters and Waterman (1982), the McKinsey 7-S model is based on the premise that an organization is not just structure, but consists of seven critical aspects of an organization which include strategy, structure, systems, style, skills, staff, and shared values (the 7Ss). The underlying argument in the McKinsey 7S model, as advanced by Peters and Waterman (1982), is that thinking intelligently about effectiveness, especially in the complex systems called organizations, requires going beyond the dominant organizing principle of the day, that is, organizational structure following strategy. The major conclusion and concept arising from this argument is that apart from structure and strategy, there are at least five other interdependent variables that impact directly on performance, and ultimately on organizational results.

From the propositions of institutional and resource based theories as well as the McKinsey 7S framework, it is evident that no two organizations can be the same, that is, have the same internal manifestations. Consequently, unique firm-level institutions determine the outcomes of strategy and require customized management approach. However, Thompson and Strickland (2003) pointed out that in as much as managers' approaches need to be tailor-made for the situation, there are certain bases that have to be covered no matter what the organization's circumstances. These include building an organization capable to carry out the strategy successfully, developing budgets to steer ample resources into those value chain activities critical to strategic success, establishing strategy supportive policies and procedures, instituting best practices and pushing for continuous improvement and how value chain activities are performed, and installing information, communication, e-commerce, and operating systems that enable company personnel to carry out their strategic roles successfully day in day out. Others include tying rewards and incentives to the achievement of performance objectives and good strategy execution, creating a strategy-supportive work environment and corporate culture, and exerting the internal leadership needed to drive implementation forward and keep improving on how the strategy is being executed.

Muthuiya (2004), pointed out that how organizations, whether for profit or non-profit, implement their strategies is important because it influences the achievement of their desired outcomes. This process requires organizations to have clear methods, procedures and systems to be able to implement their strategies effectively and efficiently. The process also requires organizations to have the capacity at the organizational level and the capabilities of the relevant staff as well as an enabling environment both internally and externally. The above aspects, he observed, mainly touch on the skills of staff, resources, structures and systems. Others are leadership, culture, organizational policies, and performance and reward systems.

Overall, the fundamental view of fit propounded by strategic management researchers and organization theorists was that it is a dynamic search that seeks to align the organization with its environment and to arrange resources internally in support of that alignment (Miles and Snow, 1984). As strategy is the force that mediates between the firm and its environment, it is in practical terms the basic alignment mechanism, and the organizational internal variables must be well suited to it if a significant competitive advantage is to be created. Firms whose strategy and other firm-level institutions are aligned should be less vulnerable to external changes and internal inefficiencies, and should thus perform better because the alignment provides the enabling environment essential for successful strategy implementation (Habib & Victor, 1991). This observation and the foregoing discussion, leads to the hypothesis:

***Firm-level institutions have a significant influence on corporate performance***

### **Methodology**

#### **Research design**

A cross-sectional survey was used to collect primary data. Olsen & George (2004) pointed out that in this type of research design, either the entire population or a subset thereof is selected, and from these individuals, data are collected to help answer research questions of interest. They clarified that it is called cross-sectional because the information about the subjects that is gathered represents what is going on at only one point in time. For purposes of this study, all the 53 publicly quoted companies in Kenya were targeted, thus making it a census survey.

#### **Measures of Key Constructs**

##### **Firm-Level Institutions**

As earlier observed, firm-level institutions constitute the internal organizational environment which define the context in which strategic decisions are implemented. It is argued that effective and successful strategy implementation requires that an organization's internal environmental variables be in congruence with the strategy. Drawing from institutional and resource-based theory as well as the McKinsey 7S framework, these internal organizational variables include the structure, organizational culture, resources (physical, financial, and human), skills and competencies, management style, systems, procedures, policies, and knowledge base among others. In this study, these variables were captured under two main dimensions: administrative systems, and resources and competencies. The firm-level institutions that were considered to be descriptive of the administrative systems include organizational structure, management style, internal controls, systems, and procedures. Those that are descriptive of resources and competencies include financial resources, skills and competencies, knowledge base, culture, and human resources.

##### **Corporate performance**

The important role of organizational performance in strategic management warrants close attention to the conceptualization and measurement of business performance (Venkatraman & Ramanujam, 1986). Measuring firm performance has been a major challenge for scholars and practitioners as well (Simerly & Mingfang, 2000). Chakravathy (1986) observed that performance is a multidimensional construct and thus, any single index may not be able to provide a comprehensive understanding of the performance relationship relative to the constructs of interest. Therefore, it is important to use multiple indicators of performance. Studies that have considered performance as a dependent variable have sought to identify other variables that produce variations in performance. March and Sutton (1997) pointed out that researchers who study organizational performance in this way typically devote little attention to the complications of using such a formulation to characterize the causal structure of performance phenomena.

In this study, both financial and non-financial measures of performance were used. These were gross profit, total organizational assets, revenue growth, earnings per share, return on investment, new product introduction, market share, product/service quality, and operational efficiency. This operationalization conveniently addressed the contention by Pearce and Robinson (2007) that financial indicators of performance give inadequate or in some cases, inaccurate perspective on the firm's status; hence the inclusion of qualitative non-financial measures in this study.

### **Data collection**

The study relied on both primary and secondary data. Primary data, which mainly concerned firm-level institutions and qualitative measures of performance, were gathered using a structured questionnaire. Firm-level institutions were captured through a 5-point Likert type scale using 21 items consisting of statements descriptive of the two dimensions of firm-level institutions, that is, administrative systems (organizational structure, management style, internal controls, systems, and procedures), and resources and competencies (financial resources, skills and competencies, knowledge base, culture, and human resources). Data on qualitative measures of performance were gathered the same way while data on quantitative measures of performance were obtained from published sources, that is, the NSE Handbook (2009) and the respective companies' annual reports (2005-2009).

### **Data analysis**

Both descriptive and inferential statistics were employed to analyze data and test the research hypothesis. Data analysis for the manifestation of firm-level institutions involved one-sample t-tests and mean scores while that for the effect of firm-level institutions on corporate performance involved hierarchical as well as multiple regression analyses. The one sample t-test was done at 95% confidence level ( $p=0.05$ ) and test value of 3 (average and mid-point of the 5-point scale). This test generated the mean scores and t-values. Mean scores show the ranking of the firm-level institutions that are most manifest in the surveyed organizations. The t-values were used to show whether there were any statistically significant differences across the surveyed companies on the extent to which the firm-level institutions are manifest in the surveyed organizations. Hierarchical regression analysis tested the independent effect of firm-level institutions on each of the measures of corporate performance. Through this analysis the nature of the independent effect (positive or negative) of each firm-level institution on the various indicators of corporate performance is determined and illustrated. The analysis generates a constant, the standardized beta coefficients ( $\beta$ ) for the independent variables, t-values, and significance levels. The beta coefficient ( $\beta$ ) shows the contribution of each firm-level institution to a unit change in the performance indicator while t-values show the significance of the independent effect of the firm-level institutions on the performance indicator. Multiple regression analysis tested the combined effect of the firm-level institutions on each measure of corporate performance. Both analyses were done at 95% confidence level ( $p=0.05$ ).

### **Results**

A description of the findings provides an understanding of the nature of the internal environment of the surveyed companies. First, we present a summary of the extent to which the various firm-level institutions were manifest in the organizations to facilitate implementation of strategic decisions. We then examine whether there are statistically significant differences across the organizations on the manifestation of firm-level institutions. In this regard mean scores and t-values generated through a one-sample t-test will be used. This will be followed by a presentation of the results on the nature and significance of the independent effect of firm-level institutions on each indicator of performance. Here, standardized beta coefficients, t-values and corresponding p-values generated through hierarchical regression analysis will be used. Lastly, using multiple regression analysis, the results of test of hypothesis will be presented and explained.

### **Manifestation of Firm-Level Institutions**

The extent to which the surveyed organizations manifest the various firm-level institutions is presented (Table 1). The results show high ranking for most firm-level institutions (mean score range from 3.52 for management style to 4.35 for organizational structure). This means that these aspects are manifested by the organizations to a large extent. The aspects influence effective and successful implementation of strategic decisions in the surveyed companies. The aspects that are manifested to a moderate extent include systems and organizational culture (mean scores=3.13 and 3.48 respectively).

**Table 1: Manifestation of Firm-Level Institutions**

<b>Firm-Level Institutions</b>	<b>N</b>	<b>Mean</b>	<b>Sample test (t-value)</b>
Structure	23	<b>4.35</b>	<b>12.159*</b>
Management Style	23	<b>3.52</b>	<b>2.912*</b>
Internal controls	23	<b>3.78</b>	<b>5.591*</b>
Systems	23	3.13	.972
Procedures	23	<b>3.96</b>	<b>6.096*</b>
Financial resources	23	<b>4.04</b>	<b>7.091*</b>
Skills and Competences	23	<b>3.93</b>	<b>8.364*</b>
Knowledge base	23	<b>3.96</b>	<b>6.500*</b>
Culture	23	3.48	<b>2.902*</b>
Human resources	23	<b>4.05</b>	<b>9.195*</b>

\*= $p < 0.05$

**NB:** Ranking was on a 5-point scale: **1**-Not at all; **2**-Less Extent; **3**-Moderate extent; **4**-Large extent; **5**-Very large extent

However, the results in Table 1 indicate that there are statistically significant differences across the surveyed organizations on the extent to which they manifested the highly and moderately ranked firm-level institutions (t-values range from 2.90,  $p < 0.05$  for organizational culture to 12.16,  $p < 0.05$  for organizational structure). This means that there is high disparity across the organizations on the manifestation of these firm-level institutions as well as their importance in the implementation of strategic decisions. There is no significant differences across the companies on the manifestation of organizational IT systems in the implementation of strategic decisions (t-value = 0.972,  $p > 0.05$ ).

#### **Firm-Level Institutions and Performance**

We present the nature and significance of the independent effect of firm-level institutions on the various indicators of performance.

#### **Firm-Level Institutions and Profit**

The study results indicate that none of the firm-level institutions had statistically significant individual effect on profit before tax (low t-values,  $p > 0.05$ ). Nonetheless, results indicated positive effect for structure, internal controls, systems, culture and human resources. Negative effects are reported for other firm-level institutions. A relatively high impact is reported for human resources ( $\beta = 0.531$ ) (Table 2).

**Table 2: Significance for the effect of firm-level institutions on PBT**

<b>Firm-level institutions</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients Beta</b>	<b>t-Value</b>
	<b>B</b>	<b>Std. Error</b>		
(Constant)	-3184339.507	5497408.508		-.579
Structure	1485005.236	1098112.411	.497	1.352
Management Style	-605220.530	610058.390	-.327	-.992
Internal controls	45140.621	797715.822	.019	.057
Systems	1226685.672	664060.161	.497	1.847
Procedures	-298548.670	709779.988	-.141	-.421
Financial resources	-916205.023	802535.778	-.407	-1.142
Skills and Competences	-912331.507	1650480.360	-.308	-.553
Knowledge base	-862299.167	1145753.932	-.383	-.753
Culture	582390.796	876523.605	.290	.664
Human resources	1541911.922	1261572.641	.531	1.222

### Firm-Level Institutions and Total Net Assets

Despite overall statistically not significant results for the effect of firm-level institutions on total net assets (low t-values,  $p > 0.05$ ), statistically significant results for the individual positive effect are reported structure (t-value = 2.491,  $p < 0.05$ ) and for individual negative effect of Financial resources (t-value = -2.265,  $p < 0.05$ ). Statistically not significant negative effects are reported for internal controls, procedures, skills and competencies, and knowledge base. Similarly, statistically not significant positive effects are reported for management style, systems, culture, and human resources. A relatively high impact is reported for organizational structure ( $\beta = 0.707$ ) (Table 3).

**Table 3: Significance for the effect of firm-level institutions on TNAs**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value
	B	Std. Error		
(Constant)	160189.821	47688525.487		.003
Structure	23727624.013	9525826.873	.707	2.491*
Management Style	793209.298	5292090.815	.038	.150
Internal controls	-6476919.404	6919968.065	-.244	-.936
Systems	8707352.474	5760541.515	.314	1.512
Procedures	-8336352.973	6157148.593	-.352	-1.354
Financial resources	-15769865.423	6961779.873	-.624	-2.265*
Skills and Competences	-17733897.616	14317468.785	-.533	-1.239
Knowledge base	-1420725.742	9939104.130	-.056	-.143
Culture	14817727.639	7603604.175	.657	1.949
Human resources	5573451.201	10943799.962	.171	.509

\*= $p < 0.05$

### Firm-Level Institutions and Sales Revenue

The study results indicate that none of the firm-level institutions had individual statistically significant effect on sales revenue (low t-values,  $p > 0.05$ ). Nonetheless, results indicated positive effect for structure, internal controls, procedures, financial resources, culture, and human resources. Negative effects are reported for other firm-level institutions. Relatively high impact is reported for internal controls ( $\beta = 0.443$ ) (Table 4).

**Table 4: Significance for the effect of firm-level institutions on Sales Revenue**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value
	B	Std. Error		
(Constant)	-52.321	32.322		-1.619
Structure	7.518	6.456	.410	1.164
Management Style	-3.044	3.587	-.269	-.849
Internal controls	6.421	4.690	.443	1.369
Systems	-.749	3.904	-.049	-.192
Procedures	.707	4.173	.055	.169
Financial resources	4.283	4.718	.310	.908
Skills and Competences	-5.997	9.704	-.330	-.618
Knowledge base	-4.650	6.736	-.337	-.690
Culture	3.087	5.153	.251	.599
Human resources	7.576	7.417	.426	1.021

### Firm-Level Institutions and Earnings Per Share

The study reports statistically not significant results for the effect of individual firm-level institutions on earnings per share (low t-values,  $p > 0.05$ ). However, positive effect is reported for systems, procedures, knowledge base, and culture while negative effect is reported for the other firm-level institutions. Relatively high impact is reported for organizational culture ( $\beta = 0.774$ ) (Table 5).

**Table 5: Significance for the effect of firm-level institutions on EPS**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value
	B	Std. Error		
(Constant)	27.513	22.703		1.212
Structure	-.453	4.535	-.040	-.100
Management Style	-1.574	2.519	-.227	-.625
Internal controls	-2.810	3.294	-.316	-.853
Systems	1.464	2.742	.158	.534
Procedures	4.066	2.931	.513	1.387
Financial resources	-2.221	3.314	-.263	-.670
Skills and Competences	-5.081	6.816	-.456	-.745
Knowledge base	1.610	4.732	.190	.340
Culture	5.845	3.620	.774	1.615
Human resources	-5.359	5.210	-.492	-1.029

### Firm-Level Institutions and Return on Investment

Despite overall statistically not significant results for the effect of firm-level institutions on return on investment (low t-values,  $p > 0.05$ ), the study reports statistically significant positive for systems (t-value = 2.285,  $p < 0.05$ ). Statistically not significant positive effects are reported for internal controls, procedures, and human resources. Statistically not significant negative effects are reported for the other firm-level institutions (Table 6).

**Table 6: Significance for the effect of firm-level institutions on ROI**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value
	B	Std. Error		
(Constant)	-23.592	35.044		-.673
Structure	-2.580	7.000	-.116	-.369
Management Style	-6.491	3.889	-.473	-1.669
Internal controls	6.463	5.085	.368	1.271
Systems	9.671	4.233	.528	2.285*
Procedures	7.108	4.525	.454	1.571
Financial resources	-2.676	5.116	-.160	-.523
Skills and Competences	-11.565	10.521	-.526	-1.099
Knowledge base	-3.051	7.304	-.183	-.418
Culture	-.657	5.588	-.044	-.118
Human resources	15.808	8.042	.734	1.966

\*= $p < 0.05$

### Firm-Level Institutions and New Product Introduction

The study results indicate that none of the firm-level institutions had statistically significant individual effect on new product introduction (low t-values,  $p > 0.05$ ). Nevertheless, results indicated positive effect for structure, internal controls, procedures, skills and competencies, knowledge base, and human resources. Negative effects were reported for other firm-level institutions. Relatively high impact is reported for organizational culture ( $\beta = -0.732$ ) (Table 7).

**Table 7: Significance for the effect of firm-level institutions on New Product Introduction**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value
	B	Std. Error		
(Constant)	-.367	.893		-.411
Structure	.026	.178	.056	.148
Management Style	-.003	.099	-.010	-.029
Internal controls	.102	.130	.276	.788
Systems	-.018	.108	-.047	-.170
Procedures	.093	.115	.284	.810
Financial resources	-.048	.130	-.138	-.371
Skills and Competences	.124	.268	.267	.461
Knowledge base	.025	.186	.072	.137
Culture	-.230	.142	-.732	-1.614
Human resources	.195	.205	.430	.950

### Firm-Level Institutions and Market Share

The study reports statistically not significant results for the effect of individual firm-level institutions on market share (low t-values,  $p > 0.05$ ). However, positive effect is reported for management style, internal controls, systems, procedures, skills and competencies, and human resources; while negative effect is reported for the other firm-level institutions. Relatively high impact is reported for procedures ( $\beta = 0.405$ ) (Table 8).

**Table 8: Significance for the effect of firm-level institutions on Market Share**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value
	B	Std. Error		
(Constant)	.032	.704		.046
Structure	-.157	.141	-.404	-1.118
Management Style	.086	.078	.359	1.104
Internal controls	.004	.102	.013	.039
Systems	.125	.085	.388	1.464
Procedures	.111	.091	.405	1.224
Financial resources	-.034	.103	-.115	-.326
Skills and Competences	.087	.211	.225	.411
Knowledge base	-.018	.147	-.063	-.126
Culture	-.035	.112	-.132	-.308
Human resources	.052	.162	.138	.323

### Firm-Level Institutions and Product/Service Quality

The study results indicate that none of the firm-level institutions had statistically significant individual effect on product/service quality (low t-values,  $p > 0.05$ ). Nonetheless, results indicated positive effect for internal controls, financial resources, skills and competencies, knowledge base, and human resources. Negative effects are reported for the other firm-level institutions. However, relatively high impact is reported for knowledge base ( $\beta = 0.551$ ) (Table 9).

**Table 9: Significance for the effect of firm-level institutions on Product/Service Quality**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value
	B	Std. Error		
(Constant)	.308	.552		.557
Structure	-.112	.110	-.394	-1.017
Management Style	-.032	.061	-.184	-.529
Internal controls	.113	.080	.502	1.412
Systems	-.009	.067	-.039	-.136
Procedures	-.034	.071	-.167	-.472
Financial resources	.017	.081	.077	.206
Skills and Competences	.092	.166	.326	.556
Knowledge base	.118	.115	.551	1.027
Culture	-.049	.088	-.257	-.558
Human resources	.019	.127	.067	.147

### Firm-Level Institutions and Operational Efficiency

The study reports statistically not significant results for the individual effect of firm-level institutions on operational efficiency (low t-values,  $p > 0.05$ ). However, positive effect is reported for structure, internal controls, knowledge base, culture, and human resources; while negative effect is reported for the other firm-level institutions. Relatively high impact is reported for organizational structure ( $\beta = 0.521$ ) (Table 10).

**Table 10: Significance for the effect of firm-level institutions on Operational Efficiency**

Firm-level institutions	Unstandardized Coefficients		Standardized Coefficients Beta	t -Value
	B	Std. Error		
(Constant)	-.200	.541		-.369
Structure	.152	.108	.521	1.410
Management Style	-.068	.060	-.373	-1.125
Internal controls	.106	.079	.456	1.344
Systems	-.008	.065	-.032	-.119
Procedures	-.022	.070	-.105	-.311
Financial resources	-.019	.079	-.085	-.237
Skills and Competences	-.083	.163	-.285	-.509
Knowledge base	.040	.113	.181	.353
Culture	.007	.086	.037	.085
Human resources	.116	.124	.407	.932

### Results of Test of Hypothesis

The preliminary findings presented in this chapter focused on testing the extent to which firm-level institutions are manifested by the organizations and whether significant differences exist across the studied organizations on the extent of their manifestation. We also laid focus on testing the statistical significance of the individual effect of firm-level institutions on the various indicators of performance. In most cases, the findings demonstrated statistically not significant independent effects of firm-level institutions on the various indicators of corporate performance. In this section we present results of test of hypothesis which was stated as follows:

#### Firm-level institutions have a significant influence on corporate performance

Through multiple linear regression analysis, the hypothesis was tested by regressing the firm-level institutions on each measure of corporate performance. This operation generated the multiple  $r$ ,  $R^2$ , F-ratio values and corresponding p-values. The multiple  $r$  value shows the strength of the relationship between firm-level institutions and each measure/indicator of performance.

The  $R^2$  value shows the proportion of change in the performance indicator that is explained by the combined effect of firm-level institutions. The F-value demonstrates the overall statistical significance of the model which predicts the effect of firm-level institutions on corporate performance at 95% confidence level ( $p=0.05$ ). The decision to confirm the hypothesis was made at values of F-ratio where  $p<0.05$ . The results of the test of the hypothesis are summarized and presented (Table 11).

**Table 11: Model Summaries for the effect of firm-level institutions on corporate performance**

Model	Multiple r	$R^2$	F-Value	p-value
<b>Profit Before Tax</b> =f(Firm-Level Institutions)	0.651	0.424	0.885	0.571
<b>Total Nets Assets</b> =f(Firm-Level Institutions)	0.810	0.656	2.288	0.088
<b>Sales Revenue</b> =f(Firm-Level Institutions)	0.685	0.470	1.064	0.453
<b>Earnings Per Share</b> =f(Firm-Level Institutions)	0.551	0.303	0.522	0.844
<b>Return on Investment</b> =f(Firm-Level Institutions)	0.758	0.575	1.620	0.212
<b>New Product introduction</b> =f(Firm-Level Institutions)	0.613	0.376	0.723	0.692
<b>Product/service Quality</b> =f(Firm-Level Institutions)	0.600	0.360	0.675	0.729
<b>Market Share</b> =f(Firm-Level Institutions)	0.664	0.441	0.948	0.527
<b>Operational efficiency</b> =f(Firm-Level Institutions)	0.646	0.417	0.859	0.590
<b>Firm-Level Institutions:</b> Human resources, Systems, Management Style, Procedures, Structure, Internal controls, Culture, Financial resources, Knowledge base, Skills and Competences				

The results (Table 11) show a strong relationship between firm-level institutions and the different measures of corporate performance (multiple r ranges from 0.55 for earnings per share (ESP) to 0.81 for total net assets (TNAs)). The results also indicate a fairly high explanatory power for firm-level institutions on various measures of performance ( $R^2$  ranges from 30.3 % for ESP to 65.6% for TNAs). However, the study reports statistically not significant results for the effect of firm-level institutions on corporate performance (low F-values,  $p>0.05$ ). As such, the study results fail to confirm the stated hypothesis and reach to a conclusion that in spite of a fairly strong relationship between firm-level institutions and corporate performance, firm-level institutions do not have a significant influence on corporate performance of publicly quoted companies in Kenya.

### Discussion

The fundamental view of fit propounded by strategic management researchers and organization theorists was that it is a dynamic search that seeks to align the organization with its environment and to arrange resources internally in support of that alignment (Miles & Snow, 1984). Firms whose strategy and other firm-level institutions are aligned should be less vulnerable to external changes and internal inefficiencies, and should thus perform better because the alignment provides the enabling environment essential for successful strategy implementation (Habib & Victor, 1991). As such, we hypothesized that firm-level institutions have a direct effect on corporate performance.

Firm-level institutions in the current study were descriptive of the internal organizational environment in which strategy implementation takes place. Vinzant & Vinzant (1996) argue that organizations must develop internal capability in order to deliver on their strategies and achieve positive performance. This study tested the hypothesized proposition that firm-level institutions have a significant effect on corporate performance. The results revealed that there is a strong relationship between firm-level institutions and corporate performance (multiple r values  $>0.50$ ) and that firm-level institutions explain a fairly large proportion of change in the various measures of corporate performance ( $R^2$  ranges from 30.30% for PBT to 65.60% for TNAs).

Despite overall statistically not significant results (low F-values,  $p>0.05$ ), statistically significant effect for individual firm-level institutions on some measures of corporate performance is reported (high t-values,  $p<0.05$ ). These results are reported for the effect of organizational structure and financial resources on the companies' total net assets and that of organizational systems on the companies' ROI. The study also reports positive and negative effect for firm-level institutions on the various measures of performance. Human resources appeared to have a positive effect on most indicators of performance while financial resources appeared to have a negative effect.

Though the study results fail to support the stated hypothesis, the findings are partially supportive of similar studies on the basis of the explanatory power of firm-level institutions over corporate performance. In their study on the relationships between intangible organizational elements and organizational performance, Carmeli & Tishler (2004) established that organizational performance can be well explained by intangible organizational elements among them managerial capabilities, human capital, internal auditing, labor relations, organizational culture, and perceived organizational reputation; and the interactions among them. Our results partially conform to attributions leveled for the role that firm-level institutions play in gaining and sustaining firm competitive advantage, hence safeguarding corporate performance (Wernerfelt, 1984; Barney, 1991; Foss & Knudsen, 2003; Wang et al, 2009).

Despite failure to support the stated hypothesis, the results offer partial support to institutional theory as well as the McKinsey 7S framework to the extent that most of the firm-level institutions that were considered in the study manifested to a large extent in the surveyed companies and that some the firm-level institutions have statistically significant independent effect on some indicators of performance. The differences in their manifestations depict contingency theory whose basic assertion is that situational and contextual factors determine management practice (Betts, 1994). The results also offer partial support to resource based theory of the firm which emphasizes the firm's internal characteristics and explains why firms make different strategic choices that lead to different outcomes (performance) and how they use the resources and capabilities to enhance their ability to adapt to changing competitive environment (Pe´rez and Castillejo, 2008).

### ***Conclusion***

In this paper, we focused on testing the direct influence of firm-level institutions on corporate performance. We observed that a very strong relationship exists between firm-level institutions and various indicators of corporate performance. This strong relationship was found to correspond to high explanatory power of the firm-level institutions over the various measures of corporate performance. Despite the high correlations and explanatory powers, the results were statistically not significant at  $p=0.05$ , hence could not support the stated hypothesis. While most studies have included some firm-level institutions as part of the co-alignment variables (Lim & Kim, 1988; Habib & Victor, 1991; Simerly & Mingfang, 2000; Madapusi, 2007; Sifa, 2009), this study considered a wider array of internal organizational variables and tested their direct effect on corporate performance. Given these differences in conceptualization, the current's study's findings partially concur with findings of past studies.

The results revealed that organizations manifest all the firm-level institutions that were considered in the study to varying degrees (mean scores range from 3.13 for systems to 4.35 for organizational structure). However, the manifestation of the firm-level institutions is not uniform across the organizations. These results mean that each organization manifests each of the firm-level institutions to varying degrees.

Despite failure to confirm the stated hypothesis, the results concur to some extent with Carmeli & Tishler's (2004) study on the basis of the variations in corporate performance that are accounted for by firm-level institutions. The results also partially conform to further evidence on the role of firm-level institutions in sustaining corporate performance (Wernerfelt, 1984; Barney, 1991; Foss & Knudsen, 2003; Wang et al, 2007). Therefore, while organizations seek to align their strategy with developments in the external environment in order to be effective, there is also need to ensure that the internal organizational environment is conducive for the implementation of strategic decisions.

### ***Implications***

Out of the results of testing the hypothesis of the study and ensuing discussions, there are implications that have emerged. These implications touch on pertinent theory, methodology, and management practice. Despite reporting varying degrees of relationships amongst the variables of study, the current study's overall results for the hypothesized relationship are statistically not significant. Therefore, we could not be emphatic in terms of implications for theory because of deficient statistical power inherent in the study due to high rate of non-response. However, the results lead to observations that are indicative of theoretical implications.

This study had put forward a proposition that firm-level institutions have a significant influence on corporate performance. The results indicate that firm-level institutions account for relatively high variation in corporate performance.

The study provides evidence of the pivotal role that the internal environment of an organization plays in determining corporate performance. It therefore provides some support for the resource based theory whose major emphasis is on how possession of strategic resources and capabilities enables organizations to gain and sustain competitive advantage.

The fact that the results of this study have not provided statistically significant support for all the hypothesized relationships serves as a basis for methodological implications. The principal focus of this study, as that of much research was post hoc explanations of statistical relationships. As proposed by Lenz (1981), there is need to explore the processes which cause these relationships. This therefore implies that methodological choices should go beyond the choice of statistical models to explore and test interactions among the various variables that are under study. The choice of regression and correlation analysis as statistical approaches had great bearing of the post hoc statistical relationships reported in this study. Given that the focus of the study was predominantly testing the statistical significance of the effect of the independent variables on the dependent variable, the choice of the *p*-value has implications for the statistical significance of the results. Therefore, statistically not significant results may turn out to be statistically significant if the *p*-value changes.

The study also reported positive effects of the various firm-level instructions on some indicators of corporate performance as well as negative effects on others. Positive effect implies that the more and/or adequate a particular internal organizational aspect is, the higher the contribution to a particular performance indicator. The reverse is true for the negative effect. This puts management on the alert to ensure that internal obstacles to effective implementation of decisions are identified and minimized. Therefore, the study implies that managers' focus should not only be in building organizational capacity to scan and understand the implications of the developments in the external environment but also on building both general management and organizations' functional capability (Ansoff and McDonnell, 1990) because of their enormous influence in the efficiency and effectiveness with which strategies are translated into action and action into results, results that are also acceptable.

### ***Limitations and Suggestions for Further Research***

The findings of this study should be interpreted and understood within the confines of inherent limitations. First, this study did not achieve 100% response rate. This is because of high rate of non-response occasioned by most target companies' restrictive policies and reluctance of the targeted respondents to return back the questionnaires and accept to be interviewed. Coupled with limited time and resources, efforts of obtaining more responses were greatly hampered. It is therefore suggested that a similar study be carried out targeting companies that never responded and compare the results with those of the current study.

Second, the study predominantly utilized regression and correlation analysis in testing the various relationships between and among various variables. This choice was made with assumption that the relationships were linear. There is a possibility that the relationships between and among the variables is non-linear and therefore testing their relationships using non-linear regression models is likely to give different results.

Third, the sampling frame was limited to publicly quoted companies in the Nairobi Stock Exchange. This means that there are many categories of organizations that were not covered by this study. Given that majority of the targeted companies did not participate in the study, there is limitation on the extent to which these results could be generalized across all the publicly quoted companies in Kenya. Therefore, the findings and conclusions drawn here might not apply to all the publicly quoted companies in Kenya as well as those in other categories that were not covered. Consequently, a similar study is necessary in other types of organizations (e.g. Wholly State Owned Enterprises, NGOs, SMEs, etc) in order to validate and/or enhance this study's findings.

Lastly, the study adopted a cross-sectional research design in which averages for corporate performance data for a five year period (2005-2009) were used. The results of this study are therefore limited to cross-sectional data without the possibility of unearthing the effect of the time period between which institutional changes could have taken place and their effect on companies' performance over time. The design did not also provide for in-depth investigation probes to unearth the unique underlying issues on a case by case basis. This provides an opportunity for replicative studies through either longitudinal or case study research designs.

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